

IN THE CLAIMS:

Please amend Claim 1 as follows:

Sub C1
1. (As amended) A semiconductor device comprising:
a substrate; and
a semiconductor element and at least one security coating provided
on a first side of the substrate, the at least one security coating including at least
two powdery fillers incorporated in a matrix,
wherein a difference between a refractive index of a first powdery
filler and that of the matrix is at least 0.3, and the coating comprises a second
powdery filler which is a substantial absorber of radiation of wavelengths at least
in the range of 800 to 1400 nm and is free of heavy metals.

REMARKS

Claims 1-8 are presented for examination. Claim 1 has been amended to define still more clearly what Applicants regard as their invention. The specification has also been amended as suggested in the Office Action. Claims 1 and 8 are the independent claims. Favorable reconsideration is respectfully requested.

In the Office Action, Claims 1-7 were rejected under 35 U.S.C. 112, second paragraph, as being indefinite. As shown above, Claim 1 has been amended to recite "at least two powdery fillers" as suggested in the Office Action. Withdrawal of the Section 112 rejection is respectfully requested.

Claims 1-3, 5 and 8 were rejected under 35 U.S.C. 102 as being

7
anticipated by U.S. Patent 5,916,944 (Camilletti et al.). Claims 1-3 were rejected under 35 U.S.C. 102 as being anticipated by U.S. Patent 5,258,334 (Lantz, II). Claims 1, 3, 4 and 8 were rejected under 35 U.S.C. 102 as being anticipated by U.S. Patent 6,198,155 (Verhaegh et al.). Claim 5 was rejected under 35 U.S.C. 103 as unpatentable over Verhaegh et al. Claims 6 and 7 were rejected under 35 U.S.C. 103 as unpatentable over Camilletti et al. in view of U.S. Patent 5,053,992 (Gilberg et al.).

Applicants traverse these rejections and respectfully submit the following comments.

Claim 1 as amended is directed to a semiconductor device including a substrate that has, provided on a first side, a semiconductor element and at least one security coating. The security coating has at least two powdery fillers incorporated in a matrix. The difference between the refractive index of a first powdery filler and that of the matrix is at least 0.3. The coating includes a second powdery filler which is a substantial absorber of radiation of wavelengths at least in the range of 800 to 1400 nm and is free of heavy metals.

As understood by Applicants, Camilletti et al. relates to a tamper-proof electronic coating provided in a electronic device. The coating includes a silica precursor resin and a filler that reacts in an oxidizing atmosphere to liberate heat.

Lantz II, as understood by Applicants, relates to a process of preventing visual access to a semiconductor device by applying an opaque ceramic coating to integrated circuit devices. The coating also provides the device with protection against environmental stresses, ionic contamination and mechanical abrasion.

Verhaegh et al. is directed to a semiconductor device comprising an integrated circuit provided with a ceramic security coating and method of

manufacturing such a device. The ceramic security coating has a matrix of monoaluminium phosphate.

As noted above, it is a feature of Claim 1 that the difference between the refractive index of the first powdery filler and that of the matrix is at least 0.3. As discussed at the last paragraph of page 2 of the specification, the first powdery filler operates to scatter visible light. Radiation in the visible spectrum as well as in the ultraviolet spectrum is thus inhibited from penetrating by scattered reflection. In order to ensure that the coating has sufficient scattering potential, it was found that the difference between the refractive index of the first filler and that of the matrix should at least be 0.3.

The Office Action, in discussing the references noted above, repeatedly states that "at least 0.3 (as is admitted by the Applicant in last paragraph of page 2 and the first paragraph of page 3 of the present Application). If this is intended to mean that this recited feature of Claim 1 is admitted as prior art – that is not correct. This feature is disclosed and described as part of the "Summary of the Invention" portion of the present application and is not admitted prior art.

In this regard, Nothing found in Camilietti et al., Lantz, II and Verhaegh et al. teaches or suggests that the difference between the refractive index of the first powdery filler and that of the matrix is at least 0.3 as recited in Claim 1.

Independent Claim 8 recites a similar feature as recited in Claim 1.

It is well settled that a reference cannot anticipate a claim unless that reference teaches and shows each and every recited feature of that claim. Accordingly, at least for the reason noted above, Claims 1 and 8 are believed patentable over the cited references.

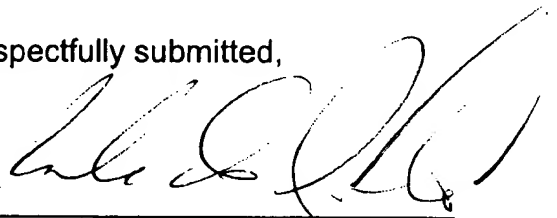
A review of the other art of record has failed to reveal anything that, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or the other of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual consideration or reconsideration, as the case may be, of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully requests favorable consideration and reconsideration and early passage to issue of the present application.

Applicants' attorney may be reached at the telephone given below.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'Rick de Pinho', written over a horizontal line.

Rick de Pinho, Reg. No. XXXX

For Dan Piotrowski, Reg. No 42,079
Attorney for Applicants,
914 333-9624

CERTIFICATE OF MAILING

It is hereby certified that this correspondence is being deposited with the United States Postal Service as first-class mail in an envelope addressed to:

COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

On March 12, 2002

By *Rick de Pinho*

Rick de Pinho, Reg. 41703

particles have a oxidized surface, e.g. their surface mainly comprises TiO_2 , and they can be bonded to the matrix as easily as the TiO_2 -particles.

In the Claims:

1. (Amended) A semiconductor device (20) ~~having comprising:~~
_____ a substrate; and (1) on a first side (2) of which there are provided
_____ a first semiconductor element (3) and at least one security coating
(14) ~~provided on a first side of the substrate, the at least one security coating~~
~~which comprises including at least two~~ powdery fillers incorporated in a matrix,
characterized in that
— _____ the ~~wherein a~~ difference between the ~~refractive index of the a first~~
powdery first-filler and that of the matrix is at least 0.3, and
— _____ the coating comprises a second ~~powdery~~ filler which is a substantial
absorber of radiation of wavelengths at least in the range of ~~from~~ 800 to 1400 nm
and is free of heavy metals.